
Name of Organization: Home*A*Syst

Type of Organization: State

Contact Information: Mr. Richard Castelnovo
University of Wisconsin-Madison, Environmental Res. Center
303 Hiram Smith Hall, 1545 Observatory Drive
Madison WI 53706

Phone: (608) 265 - 3727 **Extension:**

Fax: (608) 265 - 2775

E-Mail: rcasteln@facstaff.wisc.edu

Project Title: Improving Racine's mercury and banned pesticide collection

Project Category: Pollution Prevention and Reduction - BNS

Rank by Organization (if applicable): 0

Total Funding Requested (\$): 49,375 **Project Duration:** 1 Years

Abstract:

Improving the effectiveness of household hazardous waste collection in Racine WI with a focus on mercury and banned pesticides

This project will significantly advance efforts in Racine County, WI to collect and properly dispose of household hazardous wastes by combining targeted support to enhance collection of mercury and banned pesticides with community-based planning and educational outreach. In the short-term, it will strengthen one-time collection efforts currently funded in Racine, filling in gaps in collection activities and community outreach, and increasing the opportunities for collection and proper disposal of bioaccumulative toxic substances. In the long-term, it will build awareness of the value and benefits of collection, and increase involvement of community groups and organizations necessary to support ongoing hazardous waste collection activities within the county. Through linkages with Home*A*Syst and University of Wisconsin- Extension, this project will result in practical activities that prevent pollution from mercury and banned pesticides (e.g. aldrin/dieldrin, chlordane, DDT), making measurable progress toward protecting the Great Lakes. By targeting household wastes, it will create opportunities to reach a broad audience (including under-served groups) not served by collection activities directed at businesses and farms. This project is a natural extension of commercial programs such as the Cook County, Illinois PCB/Mercury Clean Sweep Partnership Pilot, and holds promise for duplication to strengthen household collection activities in other communities.

Geographic Areas Affected by the Project

States:

<input type="checkbox"/> Illinois	<input type="checkbox"/> New York
<input type="checkbox"/> Indiana	<input type="checkbox"/> Pennsylvania
<input type="checkbox"/> Michigan	<input checked="" type="checkbox"/> Wisconsin
<input type="checkbox"/> Minnesota	<input type="checkbox"/> Ohio

Lakes:

<input type="checkbox"/> Superior	<input type="checkbox"/> Erie
<input type="checkbox"/> Huron	<input type="checkbox"/> Ontario
<input checked="" type="checkbox"/> Michigan	<input type="checkbox"/> All Lakes

Geographic Initiatives:

<input type="checkbox"/> Greater Chicago	<input type="checkbox"/> NE Ohio	<input type="checkbox"/> NW Indiana	<input type="checkbox"/> SE Michigan	<input type="checkbox"/> Lake St. Clair
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Primary Affected Area of Concern:

Other Affected Areas of Concern:

For Habitat Projects Only:

Primary Affected Biodiversity Investment Area:

Other Affected Biodiversity Investment Areas:

Problem Statement:

The collection and proper disposal of toxic substances, especially those that persist and bioaccumulate is a key step in reducing threats to the Great Lakes. While it is crucial to focus on health care facilities and other significant generators of toxic wastes such as mercury, a community program will not be comprehensive without developing an effective component to collect household wastes. Not only will expanded efforts remove more toxic substances from the general waste stream, they have the potential to involve under-served audiences, safeguard children's health and build grassroots support from individuals and local organizations to sustain community-level protection activities.

Mercury and banned pesticides in homes are problems that merit attention. A 1997 study in the Milwaukee metropolitan area examined potential sources of mercury pollution. According to the study, nearly half (47%) of the mercury in homes was in thermostats, and thermostat switches were the second biggest source of mercury in all solid waste (including industrial solid waste). Wisconsin Dept. of Natural Resources, Publ-Co-110, 1/3/99. In July 1997, U.S. EPA and ATSDR issued a public warning about the dangers of handling mercury found in consumer items. Based on repeated episodes of mishandling mercury, the warning cautioned, "There is a continuing pattern of metallic mercury exposure in children and teenagers." Risks to children can be reduced by programs that encourage consumers to turn in mercury-containing products.

A 1992 EPA-sponsored national survey of more than 2,000 households in 58 counties across the country examined many issues related to home and garden pesticide use. The sample was representative of an estimated 84,573,000 households. The survey found that most respondents (63%) had between one and five pesticide products in the home. Many households still had pesticides whose registrations were canceled by EPA. For example, it was calculated that one million households had products containing chlordane, and 150,000 households had DDT-containing products. Unlike businesses with expertise and resources to adopt more sophisticated practices, consumers routinely disposed of empty pesticide containers and leftover pesticides in their household trash. The lack of opportunities for proper disposal of banned pesticides is particularly distressing because the study found that most people take few precautions to protect children from exposure to these toxic materials. National Home and Garden Pesticide Use Survey. 1992. U.S. EPA, Office of Pesticides and Toxic Substances, 703/305-5017.

The Racine area is an ideal target for enhanced efforts to collect hazardous waste. The city is one of the few Wisconsin cities of its size (population: 84,298) without a permanent collection program. There have been periodic collection activities aimed at different audiences such as agriculture, but they have not generated momentum for more sustained activity as part of the area's waste collection program. The Racine area is poised to make important strides. It has recently completed a successful agricultural clean sweep. It is one of eight Wisconsin communities selected to participate in a mercury reduction program to foster the use of non-mercury alternatives, such as digital thermometers; promote recycling

of mercury-containing products, such as fluorescent lamps; and reduce the potential for mercury spills and cleanups. The Racine program has limited annual funding (roughly \$4,000 provided by the grant, \$4,000 in match) to meet its broad agenda and reach a range of audiences that includes medical and dental facilities and schools. The city has received \$13,000 in funding to conduct a one-time household hazardous waste collection in the spring.

There are under-served audiences in the city of Racine who could benefit from inclusive programming. The city has 16% of its population living below the poverty line and more than 24% classified as minorities. City residents have low academic achievement and low reading levels. Over 37% of the respondents to a citywide 1995 community needs assessment indicated that they had an 8th grade education or less, or had only some high school. In areas served by Youth ALIVE, 47% of the residents reported receiving AFDC, with more than 54% receiving food stamps. The majority (66%) of individuals in these areas are minorities.

Proposed Work Outcome:

This project will contribute key components to improve present and future capacity to collect and dispose of hazardous waste within the Racine area. In the short term, the infusion of additional resources will provide an immediate boost to programming targeted at persistent toxic substances. For example, it will enable Racine to expand its mercury reduction effort to include innovative pilot outreach activities to meet the needs of the community's residential sector. This project outlines a systematic approach of planning and outreach to build individual and community awareness and motivate positive changes in behavior critical to successful collection wastes such as banned pesticides. By linking Home*A*Syst and University of Wisconsin-Extension (UWEX) with key city agencies and a community youth program entitled "Youth ALIVE" (Youth Achievement through Learning, Involvement, Volunteerism and Employment), the project will foster greater cooperation among agencies and organizations that can work together to enhance collection activities.

The involvement of Home*A*Syst and UWEX will bring expertise and delivery capacity to support effective educational outreach. Of particular significance for this project, Home*A*Syst is part of the UW-Madison Environmental Resources Center, which is cooperating with the Wisconsin Department of Natural Resources (DNR), to develop mercury education materials for managers of collection programs and to conduct a survey of managers about their mercury collection activities. On the local level, this project offers opportunities for city and county officials to coordinate collection activities, and build common ground for future efforts. With the involvement of local agencies and organizations, this project can share important messages with community members who may not be aware of the risks of hazardous products. Important information needs to be communicated about avoiding exposure to dangerous chemicals through mishandling and accidents as well as improper disposal. Special messages and materials can be designed to reach people with limited education and to convey the importance of proper disposal in protecting children's health. Outreach that involves community groups such as Youth ALIVE and targets minorities (24% of the city population) has the potential to meet environmental justice goals. By increasing community capacity to support collection programs and to conduct outreach, this project adopts complementary approaches that will build a foundation to develop more permanent solutions.

The project will first establish a multi-stakeholder committee to identify opportunities and strategies to promote collection of household hazardous waste with a focus on mercury and banned pesticides. With coordination support provided by Home*A*Syst, the committee will draw members from UWEX state and county faculty, and local agency staff and community organization representatives who have expressed an interest. The committee will identify program strengths and gaps, and then evaluate options to use existing programs more effectively, create new program components to address unmet needs, increase individual participation in activities, improve coordination between city and county officials, and take other actions to strengthen collection efforts. The committee will focus on enhancing outreach prior to the scheduled collection events and improvements in implementation of collections to increase participation.

Among its key tasks, the committee will decide how to allocate designated grant funds to best support collection and disposal activities. The committee may elect to use \$7,500 for collection activities such as purchasing participation incentives such as non-mercury thermometers or thermostats. In considering options to improve and institutionalize collection efforts, the committee will establish an education team to evaluate existing materials and delivery approaches, and develop a plan to improve outreach capacity. Home*A*Syst and UWEX will provide leadership and guidance. As part of this process, the team will develop education materials based on Home*A*Syst and other models to address unfilled needs (e.g. low literacy materials, Spanish translations). Home*A*Syst is a self-screening tool that has been proven effective in addressing environmental and health risks in and around the home. It has been modified to focus on children's health issues and translated into Spanish. In this context, it could be adapted to help individuals identify appropriate management and disposal practices for hazardous products including mercury and banned pesticides. The education team also will

identify strategies to deliver education materials and carry forward education efforts, guided by the goal of developing appropriate programming that meets community needs and incorporates community resources.

The committee will develop a plan of work to implement key tasks, describing programming activities and setting out a timetable for completing activities. As part of the project evaluation, there will be a systematic review of project activities to document what worked and what didn't work. The project will be evaluated using a combination of these indicators: number of materials distributed; increases in awareness, knowledge, and skills of participants related to hazardous product management and disposal; increases in participation in special collection programs; increases in community involvement and planning.

Home*A*Syst will take advantage of its connections with the Environmental Resources Center (ERC) to share project materials and results. ERC maintains regular contact with household hazardous waste managers in Wisconsin. It will also distribute this information through national channels including its web site and network of 37 state program coordinators.

Project Milestones:	Dates:
Committee and education team start work	06/2000
Identify, evaluate and recommend plan	07/2000
Develop plan of work	09/2000
Support collection activities	10/2000
Design and deliver outreach	10/2000
Finetune items 4 and 5	01/2001
Evaluate project/share results	04/2001
Project End	05/2001

☒ Project Addresses Environmental Justice

If So, Description of How:

With its emphasis on community-based programming, this project will involve community groups who are in the best position to address the needs of under-served audiences (i.e. low income, minority, and low literacy group) described in the Problem Statement. Effective outreach will enable these groups to participate in activities designed to protect the environment inside and outside the home. The project will empower these groups with information about the risks of hazardous products and options for safe disposal. Education materials and delivery strategies will be modified to insure that the needs of these groups are met. The project will provide information and assist community groups in identifying and reducing risks to children, a national priority supported by U.S. EPA and other agencies.

Less measurable but no less important, the project has the benefit of reducing potential contamination of water resources. For those low income groups who depend on fish for food, for example, this would reduce contamination risks.

☒ Project Addresses Education/Outreach

If So, Description of How:

In the Racine area, education and outreach activities are critical to improving program participation, enhancing collection activities including interagency coordination, and building support for ongoing collection efforts. This project sets out an education and outreach strategy in the "Proposed Work Outcome" section that is designed to motivate individuals to prevent pollution. For education and related approaches to be successful, people must visualize a personal stake in an issue. "People need to experience the connection between their actions and the local environment directly, in practical and obvious ways." EPA Discussion Paper, An EPA/USDA Partnership to Support Community-Based Education, EPA 910-R-98-008, August, 1998. Research shows that education strategies that use personalized self-screening tools such as Home*A*Syst, combined with feedback concerning appropriate recommendations, enhance motivation of individuals to take action. In a section entitled "Community Education Models that Work," the Discussion Paper singles out Farm*A*Syst/Home*A*Syst as a personal action tool that enables individuals or groups to assess and evaluate personal practices which affect the environment.

Through the collaborative process of designing education and other strategies, this project will help participating key agencies and organizations find new ways to work together and support collection activities that reduce risks from hazardous substances.

Project Budget:

	Federal Share Requested (\$)	Applicant's Share (\$)
Personnel:	19,400	3,000
Fringe:	6,300	1,000
Travel:	1,000	0
Equipment:	0	0
Supplies:	300	0
Contracts:	5,000	0
Construction:	0	0
Other:	7,500	0
Total Direct Costs:	39,500	4,000
Indirect Costs:	9,875	0
Total:	49,375	4,000
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

This project will build on national Home*A*Syst office's effort to develop children's health modules under a \$25,000 grant from USDA's Cooperative State Research Education and Extension Service. In addition, funds are being pursued from EPA's PESP program for a related project in Racine to address indoor exposure to pesticides. If funded for the full amount of \$48,000, the project will (1) develop a checklist in English and Spanish to help individuals reduce significant environmental and health risks from pesticide use in their homes, (2) organize and deliver a training in Racine to increase the capacity of local government and community groups to help residents reduce in-home exposure to pesticides, and (3) support community programming to deliver action-oriented education directly to Racine families at risk. Project activities for both proposals would complement and enhance each other.

Description of Collaboration/Community Based Support:

The community would support an initiative to strengthen community programming related to hazardous products, focusing on mercury and banned pesticides as vehicles for this effort. There are many in the Racine area who would like to establish a permanent collection program for hazardous products as part of regular waste collection. The Racine area has actively sought out funding to support collection activities. City and county officials have pursued independent efforts to fund activities. On the county level, UWEX has backed successful efforts with agricultural clean sweeps and is interested in building on this success. There is agreement that an effective education and outreach component would advance the Racine area's collection activities. A project support and cooperator, Wisconsin DNR will help transfer project materials and results to the other seven communities in the state that are developing mercury education programs. Thomas Bunker, Chief of Operations, City of Racine Wastewater Utility, has sent a letter of support stating the project will enhance Racine's limited capacity to collect hazardous waste including mercury. This project is designed to enhance and maximize the benefits of related programs and activities funded by other sources.